

REMARKS

Claims 20-33, 36-37, 39-41 and 44-67 are pending. Claims 1-19, 34-35, 38 and 42-43 were previously cancelled.

35 U.S.C. § 103(a) Rejections

Claims 20-33, 36-37, 39-41 and 44-67 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,657,813 ("Knight"). The Examiner also took Official Notice that "it is well known for machines to employ a toothed rubber member between opposed, protruded elements for the purpose of protecting the drive mechanism." Reconsideration of the rejections is respectfully requested.

To establish a *prima facie* case of obviousness, three basic criteria must be met. *M.P.E.P.* §§ 706.02(j) and 2143.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine the reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be both found in the prior art, not in applicants' disclosure.

Independent Claim 20 and dependent Claims 21-33

Claim 20 defines a drive mechanism for a power tool, the power tool including a motor including a drive shaft and an output member adapted to support a tool element, the drive mechanism comprising a gear driven by the drive shaft for rotation about an axis, a hub selectively driven by the gear for rotation about the axis, the hub being movable relative to the gear, the hub including a drive member offset from the axis and connected to the output member to drivingly connect the hub to the output member, a drive arm connecting the drive member to the output member to convert rotation of the hub to reciprocation of the output member, and structure positioned between the gear and the hub, the structure selectively transmitting drive force from the gear to the hub and selectively allowing relative movement between the gear and the hub.

Knight does not teach or suggest a power tool including, among other things, structure positioned between the gear and the hub, the structure selectively transmitting drive force from

the gear to the hub and selectively allowing relative movement between the gear and the hub. Rather, the pruning saw 10 of Knight includes a slip clutch including a gear 116 having an upper smooth surface, a cam element 120 having a lower smooth surface and a spring washer positioned below the gear 116 for providing an adjustable spring force between the lower smooth surface of the cam element 120 and the upper smooth surface of the gear 116.

For these and other reasons, Knight does not teach or suggest the subject matter defined by Claim 20.

King does not cure the deficiencies of Knight. King does not teach or suggest a drive mechanism for a power tool including, among other things, a motor including a drive shaft and an output member adapted to support a tool element. Rather, King discloses a “[f]lexible [coupling]... for transferring torque from output or drive shafts of devices such as an electric motor or internal combustion engine, to input shafts of various machines or devices, such as fans, packaging machines or pumps.” King, Column 1, lines 17-21. King also does not teach or suggest a drive arm connecting the drive member to the output member to convert rotation of the hub to reciprocation of the output member. Rather, the coupling assembly 10 of King has a linear arrangement and includes circular coupling members 14, 16, a generally circular elastomeric spider 18 and a generally circular housing assembly 12 positioned between the first coupling member 14 and the spider 18 and the second coupling member 16.

For these and other reasons, King does not teach or suggest the subject matter defined by Claim 20.

Iwabuchi also does not cure the deficiencies of Knight. Iwabuchi does not teach or suggest a drive mechanism for a power tool including, among other things, a motor including a drive shaft and an output member adapted to support a tool element. Rather, Iwabuchi discloses a transmission buffer for “a motor [used] when a window of an automobile is raised or lowered by the turning force of the motor.” Iwabuchi, Column 1, lines 18-20. Iwabuchi also does not teach or suggest a drive arm connecting the drive member to the output member to convert rotation of the hub to reciprocation of the output member. Rather, the power window drive element of Iwabuchi has a linear arrangement and includes a generally circular input rotary body 6, a generally circular output rotary body 11 and a generally circular elastic body 10 positioned between the input rotary body 6 and the output rotary body 11.

Further, there is no teaching or suggestion in Knight or King and Iwabuchi that the teachings of these references should be combined. In fact, these references actually teach away from the combination suggested by the Examiner.

As illustrated in Knight, King and Iwabuchi, there are significant differences between pruning saws and fans, packaging machines and pumps and between pruning saws and power window drives, and these differences present significantly different design considerations, making the suggested combination of the teachings of Knight and King and Knight and Iwabuchi inappropriate.

Moreover, Knight actually teaches away from the modification suggested by the Examiner. As discussed above, the pruning saw of Knight includes a slip clutch including a gear 116 having an upper smooth surface, a cam element 120 having a lower smooth surface and a spring washer positioned below the gear 116 for providing an adjustable spring force between the lower smooth surface of the cam element 120 and the upper smooth surface of the gear 116. Further, for the slip clutch of Knight to operate properly, the cam 120 must be able to rotate about the axis of the shaft 118 independently from the gear 116 and the lower surface of the cam element 120 must be able to slide across the upper surface of the gear 116.

With the proposed modification of King and/or Iwabuchi, the cam 120 and the gear 116 would include inter-engaging elements and, therefore, the cam element 120 would not be able to slip relative to the gear 116, which is, generally, the intended objective of a slip clutch. If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d at 902, 221 U.S.P.Q. at 1127.

For these and other reasons, Knight, King and Iwabuchi do not teach or suggest the modification suggested by the Examiner and, in fact, the references teach away from such a combination. It is improper to combine references where the references teach away from such a combination. In re Grasselli, 713 F.2d at 743, 218 U.S.P.Q. at 779.

In summary, Knight, King and Iwabuchi, alone or in combination, do not teach or suggest all of the claim limitations of independent Claim 20. Further there is no teaching or suggestion to combine the references and, in fact, the references teach away from such a combination. Therefore, Applicants respectfully submit that the Examiner has failed to present a *prima facie* case of obviousness of Claim 20 based upon the prior art as required by 35 U.S.C. § 103.

For these and other reasons, Knight, King and Iwabuchi, alone or in combination, do not teach or suggest the subject matter defined by independent Claim 20. Accordingly, independent Claim 20 is allowable. Dependent Claims 21-33 depend from Claim 20 and are allowable for the same and other reasons.

Independent Claim 36 and dependent Claims 37 and 44-52

Claim 36 defines a power tool comprising a housing, a motor supported by the housing and having a drive shaft, an output member supported by the housing and adapted to support a tool element, and a drive mechanism supported by the housing and operable to drive the output member, the drive mechanism including a gear driven by the drive shaft for rotation about an axis and including a protrusion, a hub selectively driven by the gear for rotation about the axis, the hub being movable relative to the gear and including a hub protrusion, the gear protrusion drivingly engaging the hub protrusion, and structure positioned between the gear protrusion and the hub protrusion, the structure selectively transmitting drive force from the gear to the hub and selectively allowing relative movement between the gear and the hub.

Knight does not teach or suggest a power tool including, among other things, structure positioned between the gear protrusion and the hub protrusion, the structure selectively transmitting drive force from the gear to the hub and selectively allowing relative movement between the gear and the hub. Rather, the pruning saw 10 of Knight includes a slip clutch including a gear 116 having an upper smooth surface, a cam element 120 having a lower smooth surface and a spring washer positioned below the gear 116 for providing an adjustable spring force between the lower smooth surface of the cam element 120 and the upper smooth surface of the gear 116.

For these and other reasons, Knight does not teach or suggest the subject matter defined by Claim 36.

King does not cure the deficiencies of Knight. King does not teach or suggest a power tool including, among other things, a housing, a motor supported by the housing and having a drive shaft, an output member supported by the housing and adapted to support a tool element, and a drive mechanism supported by the housing and operable to drive the output member. Rather, King discloses a “[f]lexible [coupling]... for transferring torque from output or drive shafts of devices such as an electric motor or internal combustion engine, to input shafts of

various machines or devices, such as fans, packaging machines or pumps.” King, Column 1, lines 17-21.

For these and other reasons, King does not teach or suggest the subject matter defined by Claim 36.

Iwabuchi also does not cure the deficiencies of Knight. Iwabuchi does not teach or suggest a power tool including, among other things, a housing, a motor supported by the housing and having a drive shaft, an output member supported by the housing and adapted to support a tool element, and a drive mechanism supported by the housing and operable to drive the output member. Rather, Iwabuchi discloses a transmission buffer for “a motor [used] when a window of an automobile is raised or lowered by the turning force of the motor.” Iwabuchi, Column 1, lines 18-20.

Further, there is no teaching or suggestion in Knight, King and Iwabuchi that the teachings of these references should be combined. In fact, these references actually teach away from the combination suggested by the Examiner.

Rather than re-present the arguments set forth above with respect to this contention, for brevity’s sake, Applicants refer to the discussion above for Claim 20. With respect to Claim 36, the same arguments apply to the lack of a suggestion in the references that the teachings of the references should or could be combined and to the contention that the references actually teach away from the combination suggested by the Examiner.

In summary, Knight, King and Iwabuchi, alone or in combination, do not teach or suggest all of the claim limitations of independent Claim 36. Further there is no teaching or suggestion to combine the references and, in fact, the references teach away from such a combination. Therefore, Applicants respectfully submit that the Examiner has failed to present a *prima facie* case of obviousness of Claim 36 based upon the prior art as required by 35 U.S.C. § 103. For these and other reasons, Knight, King and Iwabuchi, alone or in combination, do not teach or suggest the subject matter defined by independent Claim 36. Accordingly, independent Claim 36 is allowable. Claims 37 and 44-52 depend from independent Claim 36 and are allowable for the same and other reasons.

Independent Claim 39 and dependent Claims 40 and 53-60

Claim 39 defines a reciprocating saw comprising a housing, a motor supported by the housing and having a drive shaft, a spindle supported by the housing and adapted to support a saw blade, and a drive mechanism supported by the housing and operable to drive the spindle, the drive mechanism including a gear driven by the drive shaft for rotation about an axis, a hub selectively driven by the gear for rotation about the axis, the hub being movable relative to the gear and including a drive member offset from the axis and connected to the output member to drivingly connect the hub to the output member, and structure to absorb impact positioned between the gear and the hub, the structure selectively transmitting drive force from the gear to the hub and allowing relative movement between the gear and the hub to absorb an impact on the spindle.

Knight does not teach or suggest a reciprocating saw including, among other things, structure to absorb impact positioned between the gear and the hub, the structure selectively transmitting drive force from the gear to the hub and allowing relative movement between the gear and the hub to absorb an impact on the spindle. Rather, the pruning saw 10 of Knight includes a slip clutch including a gear 116 having an upper smooth surface, a cam element 120 having a lower smooth surface and a spring washer positioned below the gear 116 for providing an adjustable spring force between the lower smooth surface of the cam element 120 and the upper smooth surface of the gear 116.

For these and other reasons, Knight does not teach or suggest the subject matter defined by Claim 39.

King does not cure the deficiencies of Knight. King does not teach or suggest a reciprocating saw including, among other things, a housing, a motor supported by the housing and having a drive shaft, and a drive mechanism supported by the housing and operable to drive the spindle. Rather, King discloses a “[f]lexible [coupling]... for transferring torque from output or drive shafts of devices such as an electric motor or internal combustion engine, to input shafts of various machines or devices, such as fans, packaging machines or pumps.” King, Column 1, lines 17-21.

For these and other reasons, King does not teach or suggest the subject matter defined by Claim 39.

Iwabuchi also does not cure the deficiencies of Knight. Iwabuchi does not teach or suggest a reciprocating saw including, among other things, a housing, a motor supported by the housing and having a drive shaft, and a drive mechanism supported by the housing and operable to drive the spindle. Rather, Iwabuchi discloses a transmission buffer for “a motor [used] when a window of an automobile is raised or lowered by the turning force of the motor.” Iwabuchi, Column 1, lines 18-20.

Further, there is no teaching or suggestion in Knight, King and Iwabuchi that the teachings of these references should be combined. In fact, these references actually teach away from the combination suggested by the Examiner.

Rather than re-present the arguments set forth above with respect to this contention, for brevity's sake, Applicants refer to the discussion above for Claim 20. With respect to Claim 39, the same arguments apply to the lack of a suggestion in the references that the teachings of the references should or could be combined and to the contention that the references actually teach away from the combination suggested by the Examiner.

In summary, Knight, King and Iwabuchi, alone or in combination, do not teach or suggest all of the claim limitations of independent Claim 39. Further there is no teaching or suggestion to combine the references and, in fact, the references teach away from such a combination. Therefore, Applicants respectfully submit that the Examiner has failed to present a *prima facie* case of obviousness of Claim 39 based upon the prior art as required by 35 U.S.C. § 103. For these and other reasons, Knight, King and Iwabuchi, alone or in combination, do not teach or suggest the subject matter defined by independent Claim 39. Accordingly, independent Claim 39 is allowable. Claims 40 and 53-60 depend from independent Claim 39 and are allowable for the same and other reasons.

Independent Claim 41 and dependent Claims 61-67

Claim 41 defines a reciprocating saw comprising a housing, a motor supported by the housing and having a drive shaft, a spindle supported by the housing and adapted to support a saw blade, and a drive mechanism supported by the housing and operable to drive the spindle, the drive mechanism including a gear driven by the drive shaft for rotation about an axis, a hub selectively driven by the gear for rotation about the axis, the hub being movable relative to the gear, and structure to absorb impact positioned between the gear and the hub, the structure

selectively transmitting drive force from the gear to the hub and allowing relative movement between the gear and the hub to absorb an impact on the spindle. Claim 41 specifies that the gear defines a pocket and includes a gear protrusion in the pocket, that a portion of the hub is supported in the pocket and includes a hub protrusion, the gear protrusion drivingly engaging the hub protrusion, and that at least a portion of the structure is positioned between the gear protrusion and the hub protrusion.

Knight does not teach or suggest a reciprocating saw including, among other things, structure to absorb impact positioned between the gear and the hub, the structure selectively transmitting drive force from the gear to the hub and allowing relative movement between the gear and the hub to absorb an impact on the spindle. Rather, the pruning saw 10 of Knight includes a slip clutch including a gear 116 having an upper smooth surface, a cam element 120 having a lower smooth surface and a spring washer positioned below the gear 116 for providing an adjustable spring force between the lower smooth surface of the cam element 120 and the upper smooth surface of the gear 116.

For these and other reasons, Knight does not teach or suggest the subject matter defined by Claim 41.

King does not cure the deficiencies of Knight. King does not teach or suggest a reciprocating saw including, among other things, a housing, a motor supported by the housing and having a drive shaft, a spindle supported by the housing and adapted to support a saw blade, and a drive mechanism supported by the housing and operable to drive the spindle. Rather, King discloses a “[f]lexible [coupling]... for transferring torque from output or drive shafts of devices such as an electric motor or internal combustion engine, to input shafts of various machines or devices, such as fans, packaging machines or pumps.” King, Column 1, lines 17-21.

For these and other reasons, King does not teach or suggest the subject matter defined by Claim 41.

Iwabuchi also does not cure the deficiencies of Knight. Iwabuchi does not teach or suggest a reciprocating saw including, among other things, a housing, a motor supported by the housing and having a drive shaft, a spindle supported by the housing and adapted to support a saw blade, and a drive mechanism supported by the housing and operable to drive the spindle. Rather, Iwabuchi discloses a transmission buffer for “a motor [used] when a window of an

automobile is raised or lowered by the turning force of the motor.” Iwabuchi, Column 1, lines 18-20.

Further, there is no teaching or suggestion in Knight, King and Iwabuchi that the teachings of these references should be combined. In fact, these references actually teach away from the combination suggested by the Examiner.

Rather than re-present the arguments set forth above with respect to this contention, for brevity’s sake, Applicants refer to the discussion above for Claim 20. With respect to Claim 41, the same arguments apply to the lack of a suggestion in the references that the teachings of the references should or could be combined and to the contention that the references actually teach away from the combination suggested by the Examiner.

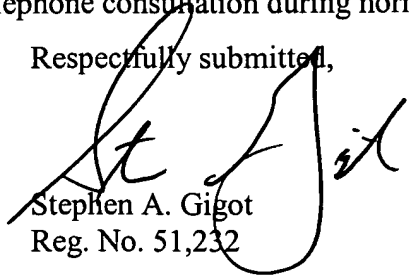
In summary, Knight, King and Iwabuchi, alone or in combination, do not teach or suggest all of the claim limitations of independent Claim 41. Further there is no teaching or suggestion to combine the references and, in fact, the references teach away from such a combination. Therefore, Applicants respectfully submit that the Examiner has failed to present a *prima facie* case of obviousness of Claim 41 based upon the prior art as required by 35 U.S.C. § 103. For these and other reasons, Knight, King and Iwabuchi, alone or in combination, do not teach or suggest the subject matter defined by independent Claim 41. Accordingly, independent Claim 41 is allowable. Claims 61-67 depend from independent Claim 41 and are allowable for the same and other reasons.

CONCLUSION

In view of the foregoing, Applicants respectfully request entry of the above amendments and allowance of Claims 20-33, 36-37, 39-41 and 44-67.

The undersigned is available for telephone consultation during normal business hours.

Respectfully submitted,



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